

HUMAN RESOURCES AND TRAINING NEEDS TASK FORCE

ABSTRACT

The Internacional Civil Aviation Organization (ICAO) has divided the world, for administratives purposes, into several Regions. One of these, pertaining to the Caribbean/ South American Region, is therefore referred to as the CAR/SAM Region. The CAR/SAM Region has an Implementation and Planning Group called GREPECAS, which is composed by all member states of the area. The goal of this Group is to implement the different policies, related to aviation, in this part of the world.

In a sense “feeding” this Major Group, are several Sub- Groups, each one tasked with one different aspect: there is the Air Traffic Management Sub-Group, the Meteorology Sub-Group, the Aeronautical Information Service Sub-Group and the CNS/ATM Implementation and Coordination Sub-Group, among others.

To deal with an specific topic, each Sub-Group may have different Task Forces. In the case of the CNS/ATM Implementation and Coordination Sub-Group, there are the Augmentation, the Legal and Institutional Issues and the Human Resources and Training Needs Task Forces.

It's on this last one upon which we'll focus our attention, because it deals specifically with the training aspects of the CNS/ ATM Systems' implementation.

HUMAN RESOURCES AND TRAINING NEEDS TASK FORCE

The Human Resources and Training Needs Task Force was created during a meeting of the CNS/ATM Sub-Group which took place in Lima, Peru, in July 1995.

Its membership is as follows:

Argentina, Brasil, Chile, Ecuador, México, Uruguay, COCESNA and IFALPA.

Its Reference Terms are:

a) To review the requirements of human resources and training needs when implementing the CNS/ATM Systems;

b) To propose procedures capable of use by Estates of the CAR/ SAM Region, when evaluating its human resources and training needs.

The working Programme of the Task Force is as follows:

a) To compile the different elements needed to disseminate the CNS/ ATM concepts;

b) To identify the human resources training needs when implementing the CNS/ ATM Systems in the CAR/SAM Region; and

c) To identify, in coordination with the National Training Centres, the training resources extant and available in the CAR/SAM Region.

GUIDANCE MANUAL

During the Task Force first meeting, which took place in August 1996 in Redondo Beach, California, it was decided among its members, to try to compile a “Guidance Manual for Human Resources and Training on CNS/ ATM Systems”, which could be useful to crewmembers, Air Traffic Controllers and Technical Support Personnel, among others, involved in the implementation of the CNS/ ATM Systems.

We did find out that there was, at least in mid 1996, plenty of aspects related to training on CNS/ATM Systems, which were then, and maybe still now, not fully understood by all Estates.

We also made a mention of the various human and psychological aspects which exert its influence upon the human resources.

Finally, we declared that success in implementing these systems is closely related with the motivation which could be addressed

by the Training Programs to be developed by each Administration.

Section I and Glossary

At first, it was decided to divide the Manual in two Sections plus a Glossary of Terms; the first one devoted to general information on CNS/ ATM Systems and the second Section related to the Programmes.

During the Task Force second meeting, in Mexico City in June 1997, we started working in Section I and the Glossary of Terms.

Section I is divided in chapters devoted to Communications, Navigation, Surveillance and Air Traffic Management, and the information included is updated as of June 1998.

The Glossary of Terms related with the concept CSN/ATM has been compiled from different sources. It should be taken into account that some of these concepts are right now being developed, so some of them should

Section III

It was decided to include a Section III, which would deal with the “Impact of Automation Related with CNS/ATM, Systems Upon Human Factors”.

Taking into account that it would have to embrace a lot of abstract topics, the Task Force decided to arrange it in 3 Chapters: Chapter 1, serving as an introduction to automation and its impact on human beings; Chapter 2 would give a brief description of the majority of the factors involved and Chapter 3 would highlight some recommendations, useful in assisting the Civil Aviation Authorities when dealing with this impact.

During the 4th Meeting we made a Draft of this new Section, which is now being revised and corrected by the members of the Task Force. It is planned to have it ready in time to the Task Force meeting next year.

be considered as provisional. We have included more than 60 definitions.

The work on Section I and the Glossary of Terms was completed in 1998 so, in the Task Force third meeting, in Mexico City in June 1998, we presented them in its definitive form. After that we started working on Section II, containing the CNS/ ATM Programs.

Section II

It was intended that Section II would act as a guide to the Estates, helping them to choose, from the different elements of the “menu” of human resources and training needs, the ones to be taken into consideration when implementing the CNS/ ATM Systems, and also how each element would affect the training needs of Crewmembers, Air Traffic Controllers and Technical Support Personnel. Section II was completed during the Task Force 4th meeting, which took place last May at the FAA Academy.

REFERENCES

1. Tenh Air Conference Report (ICAO)
2. ICAO Circular 267-AN/159 - Guidelines for the introduction and operational use of GNSS
3. Statement of automation philosophy Delta Air Lines, 1990
4. Toward a Human- centered Automation Philosophy. Charles E. Billings, 1984
5. ICAO Circular 249-AN/ 149 Human Factors in CNS/ ATM Systems